

Appl. No. 10/605,968
Amdt. dated June 13, 2007
Reply to Office action of March 19, 2007

Amendments to the Specification:

Please replace paragraph [0022] with the following amended paragraph:

[0022] Please refer to Fig.4 and Fig.5, Fig.4 is a top view of a selective chromeless
5 alternate phase shift mask 100 according to a first preferred embodiment of the instant
invention, Fig.5 is a schematic diagram illustrating a method for improving a
resolution of contact hole patterns in a photoresist layer by utilizing the selective
chromeless alternate phase shift mask 100 according to the first preferred embodiment
of the instant invention. As shown in Fig.4 and Fig.5, the present invention method
10 to improve the resolution of the contact hole patterns is to provide a selective
chromeless alternate phase shift mask 100 first. The selective chromeless alternate
phase shift mask 100 is a kind of phase shift mask. A plurality of transparent main
features 102, a plurality of first phase shift transparent regions 104, and a plurality of
second phase shift transparent regions 106 are included on the selective chromeless
15 phase shift mask 100. Each of the transparent main features 102 is surrounded by the
first phase shift transparent regions 104 and the second phase shift transparent regions
106 interlaced contiguously along a periphery of the transparent main feature 102, and
each of the first phase shift transparent regions 104 has a phase shift of 180 degrees
relative to each of the second phase shift transparent regions 106. ~~The first phase~~
20 ~~shift transparent region 104 and the second phase shift transparent region 106 share a~~
~~common side 111. One end of the common side 111 is located at or on the periphery~~
~~of the transparent main features 102. The first phase shift transparent region 104 has~~
~~another side 112 adjacent to the common side 111. The second phase shift~~
~~transparent region 106 has another side 113 adjacent to the common side 111. The~~
25 ~~sides 112 and 113 are located at or on the periphery of the transparent main feature~~
~~102.~~

Please replace paragraph [0030] with the following amended paragraph:

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[0030] Please refer to Fig.6, Fig.6 is a top view of a selective chromeless alternate phase shift mask 200 according to a second preferred embodiment of the present invention. As shown in Fig.6, the present invention selective chromeless alternate phase shift mask 200 comprises a plurality of transparent main features 202, a plurality of first phase shift transparent regions 204, a plurality of second phase shift transparent regions 206, and a plurality of opaque regions 208. Each of the transparent main features 202 is surrounded by the first phase shift transparent regions 204 and the second phase shift transparent regions 206 interlaced contiguously along a periphery of the transparent main feature 202. The opaque regions 208 are plated with a chrome film (not shown). In addition, each of the opaque regions 208 is surrounded by the first phase shift transparent regions 204 and/or the second phase shift transparent regions 206, and is not connected with the transparent main features 202. ~~The first phase shift transparent region 204 and the second phase shift transparent region 206 share a common side 211. One end of the common side 211 is located at or on the periphery of the transparent main features 202. The first phase shift transparent region 204 has another side 212 adjacent to the common side 211. The second phase shift transparent region 206 has another side 213 adjacent to the common side 211. The sides 212 and 213 are located at or on the periphery of the transparent main feature 202.~~